

California High-Speed Rail Authority



RFP No.: HSR 14-32

**Request for Proposal for Design-Build
Services for Construction Package 4**

**Reference Material, Part E.10 – Section 401
Permit for Construction Package 1C**



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

SECOND AMENDMENT OF THE CLEAN WATER ACT SECTION 401
WATER QUALITY CERTIFICATION FOR
CALIFORNIA HIGH SPEED RAIL AUTHORITY
CALIFORNIA HIGH SPEED TRAIN – MERCED TO FRESNO PERMITTING PHASE 1 AND
FRESNO TO BAKERSFIELD CP1C
FILE NO. SB13001IN, REGULATORY MEASURE (RM) # 391375
U.S. ARMY CORPS OF ENGINEERS FILE NUMBER SPK-2009-01483

SECOND AMENDMENT: On March 21, 2014, the High Speed Rail Authority (HSRA) submitted an application for a Clean Water Act section 401 water quality certification for a portion of the Fresno to Bakersfield section. The application included Construction Package (CP) 1c and two additional CPs. On June 10, 2014, HSRA requested that CP1c be certified separately from other two CPs (letter dated June 2, 2014). The CP1c section would entail five miles of rail line, as lies south from the Fresno Station. Final application information for CP1c was received by the Division of Water Quality June 2, 2015. Upon receipt of this additional information, State Water Board staff found that the CP1c section could be appropriately certified by amendment of the Merced to Fresno Permitting Phase 1 (PP1) certification which was signed on April 10, 2014.

This constitutes the second amendment of the original PP1 certification. This amendment also includes changes to the designated applicant's agent and similar minor updates, and provides additional CEQA findings specific to CP1c. Minor corrections of spelling and punctuation are not annotated.

All changes due to this second amendment to the Clean Water Act Section 401 Water Quality Certification issued on March 12, 2014, are shown below as additions in **bold underline**, and deletions in **bold strikethrough**.

FIRST AMENDMENT (April 10, 2014): On April 7, 2014, the High Speed Rail Authority requested a time extension for providing a financial assurances instrument for compensatory mitigation to the State Water Resources Control Board as required in Additional Condition Number 50 and Attachment F of this Clean Water Act Section 401 Water Quality Certification issued on March 12, 2014. The first amendment provided a twelve (12) month extension to the due date of the financial assurances instrument.

PROJECT: California High Speed Rail Authority – California High Speed Train System –
Merced to Fresno Permitting Phase 1 and CP1c.

FELICIA MARCUS, CHAIR | THOMAS HOWARD, EXECUTIVE DIRECTOR

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This Clean Water Act Section 401 Water Quality Certification (Certification) responds to your request on behalf of the California High Speed Rail Authority (HSRA or Applicant) for certification of the California High Speed Train (HST) System – Merced to Fresno Permitting Phase 1 (PP1). Your application for PP1 was received on May 17, 2013, and deemed complete on June 17, 2013. Your initial application for CP1c was received on March 19, 2014 and found to be complete on June 4, 2015. Your request to amend the Certification of PP1 to include CP1c was received on June 9, 2015.

ACTION:

- Order for Standard Certification Order for Denial of Certification
 Order for Technically Conditioned Order for Waiver of Waste Discharge
Certification Requirements

AUTHORIZATION:

This Order conditionally certifies the Project as described in Attachment B, Project Information, of this Order. The Project is the first of nine a number of planned sections for the complete HST system. The HST system will ultimately connect San Francisco and Los Angeles and encompasses 800 miles, including extensions to Sacramento and San Diego. The system is proposed to be an electrically powered, high-speed, steel-wheel-on-steel-rail technology with safety, signaling, and automated train-control systems. The trains are proposed to operate at speeds of up to 220 miles per hour over a fully grade-separated, dedicated track alignment.

The purpose of this Project is to construct the initial Merced to Fresno section of the HST system **and the first five miles of the Fresno to Bakersfield section**. This Project includes an additional construction phase yet to be scheduled that is not covered under this Certification (See Attachment C, Project Area Maps **[revised]**). The Project footprint includes the HST track alignment, the track right-of-way and Project facilities. These facilities include a downtown Fresno station, electrical traction power substations, and switching and paralleling stations (collectively, Non-Rail Facilities). Additionally, proposed shifts in the existing roadway rights-of-way associated with the Project, including overcrossings and interchanges, are included to accommodate the HST system. The north end of the alignment for the Project starts at Avenue 17 (Madera County) and **proceeds** south of State Route (SR) 41 adjacent to Los Angeles Street (city of Fresno) in the south, **and continues to the south end of CP1c, approximately**

five miles south of the proposed Fresno Station in downtown Fresno (under construction).

Currently, Project pre-construction activities are underway (finalizing design, relocating utilities, acquiring properties, etc.) with significant construction planned in the next six months. Construction work will start at Avenue 17 in Madera County to just south of the downtown Fresno station (See Attachment C, Project Area Maps). Primary construction elements of the project are proposed to be complete by the end of 2017. Some project elements, such as the installation of track and electrical facilities, and the construction of the Fresno station may extend beyond 2017.

The HSRA is the Project's lead agency under California Environmental Quality Act (CEQA). The HSRA Board of Directors, as the lead agency, certified the Final Environmental Impact Report/Environmental Impact Statement (FEIR/FEIS) **for the Merced to Fresno section of the HST** and issued a Notice of Determination in accordance with CEQA on May 3, 2012. The Board also approved the Hybrid Alternative Project for the north/south system alignment and the Downtown Merced and Downtown Fresno Mariposa Street station locations. In doing so, the HSRA Board adopted CEQA findings of fact, a corresponding statement of overriding considerations, and a Mitigation Monitoring and Reporting Program (MMRP).

The HSRA Board of Directors, as the lead agency, subsequently certified a FEIR/FEIS for the Fresno to Bakersfield section of the HST, including CP1c, and issued a Notice of Determination in accordance with CEQA on May 8, 2014. In doing so, the HSRA Board adopted CEQA findings of fact, a corresponding statement of overriding considerations, and a Mitigation Monitoring and Reporting Program (MMRP).

Public Resources Code section 21081.6(a)(1) requires that the Lead Agency adopt a MMRP, at the time the Lead Agency determines to carry out a project, to monitor and/or report on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.

The Federal Railroad Administration (FRA) is the Project's lead agency under the National Environmental Policy Act (NEPA). The FRA issued a Record of Decision (ROD) under NEPA on September 18, 2012. Through the ROD, the FRA approved the Hybrid Alternative and Downtown Merced and Downtown Fresno Mariposa Street station locations, consistent with the HSRA decision in May 2012. The Final EIR/EIS has been made available to the public and public agencies pursuant to CEQA and the NEPA.

The FRA issued a ROD for the Fresno to Bakersfield project on June 28, 2014. The FRA approved the Burlington Northern Santa Fe Railway (BNSF) alignment with the Corcoran Bypass, Allensworth Bypass, and the Bakersfield Hybrid alignments with the Kings Tulare Regional and Downtown Bakersfield Station at Truxton Avenue. The Authority's decision on May 7, 2014 approved the same project as FRA's ROD except for an alignment and station location south of 7th Standard Road in Kern County. The FRA approved the FEIR/FEIS for the Fresno to Bakersfield project on April 18, 2014.

STANDARD CONDITIONS:

1. This Certification action and Order are subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to the Water Code, section 13330, and the California Code of Regulations, title 23, section 3867 and following.
2. This Certification action is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent Certification application was filed pursuant to California Code of Regulations, title 23, section 3855, subdivision (b), and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Certification is conditioned upon total payment of any fee required under California Code Regulations, title 23, and owed by the Applicant.
4. In the event of any violation or threatened violation of the conditions of this Certification, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Certification Order.

ADMINISTRATIVE CONDITIONS:

5. Minor modifications of Project locations or predicted impacts may be necessary as a result of unforeseen field conditions, necessary engineering re-design, construction concerns, or similar reasons. Some of these prospective Project modifications may have impacts on waters resources.

Some modifications of Project locations or predicted impacts may qualify as Certification Deviations. For purposes of this Certification, a "Certification Deviation" is a Project locational or impact modification that does not require an immediate amendment of the Certification, because the State Water Resources Control Board (State Water Board) has determined that any potential water resource impacts that may result from the change are sufficiently addressed by the Certification conditions and the FEIR/FEIS. Project modifications that warrant or necessitate changes to Certification conditions that are not addressed by existing environmental documents will require an amendment to this Certification and do not qualify for the Certification Deviation procedures set forth in Attachment D. After the termination of construction, this Certification will be amended to reflect all authorized Certification Deviations and any resulting adjustments to the amount of water resource impacts and required compensatory mitigation amounts.

6. As appropriate to ensure compliance with applicable water quality standards, the State Water Board reserves the right to suspend, cancel, or modify and reissue this Certification, after providing notice to the Applicant and/or its contractor/sub-contractor, if the State Water Board determines that the Applicant or any of its agents fail to comply with any of the terms or conditions of this Certification.

7. A copy of this Certification must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the proposed Project shall be familiar with the content of this Certification and its location on the Project site(s).
8. The Applicant shall grant the State Water Board and the Central Valley Regional Water Quality Control Board (Regional Water Board) staff, or an authorized representative, upon presentation of credentials and other documents as may be required by law, permission to enter the Project site(s) to ensure compliance with the terms and conditions of this Certification and/or to determine the impacts the Project may have on waters of the state, as defined in Water Code section 13050, subdivision (e).
9. For the purpose of this Certification, "start of construction" means commencement of any on-site construction activities within 100 feet of waters of the state, or that have the potential to affect waters of the state. Such activities include, but are not limited to:
 - establishment of off-site work areas,
 - move-in of materials,
 - site clearing,
 - grading,
 - dredging,
 - landfilling,
 - changing equipment,
 - substituting equipment, or
 - moving the location of equipment specifically designed for a stationary source in preparation for the fabrication, erection or installation of the building components of the stationary source.
10. Prior to the start of construction, the Applicant shall submit to the State Water Board, Project area maps that clearly identify all major Project features, mileposts, or other location descriptors with the location identification system used by HSRA and its contractors. This location identification system must be used for all Project environmental reporting and documentation. The Applicant shall instruct all contractors to use this location identification system in all environmental compliance documentation and reporting.
11. Prior to start of construction, the Applicant shall submit to the State Water Board a current list of key personnel who are responsible for compliance with this Certification and the MMRP adopted by HSRA. This list must be maintained and updated as needed. State Water Board staff must be notified within 3 days of all updates to the list.

ADDITIONAL CONDITIONS – MITIGATION MONITORING AND REPORTING PROGRAM:

12. The Applicant and its contractors shall abide by all mitigation measures as described in the MMRP, as adopted by HSRA in May 2012 and subsequently revised on August 30, 2013 (i.e., Revision 2). Any subsequent revision of the MMRP that may affect waters of the state must be approved by State Water Board staff prior to adoption and implementation.

13. The Biological Resources Management Plan (BRMP), as required Mitigation Measure (MM) Bio-MM#5 and the MMRP, must include all biological resources mitigation measures that are described in the FEIR/FEIS. The BRMP includes measures to protect water quality and beneficial uses of waters of the state; therefore, the conditions of the BRMP that address water quality and beneficial uses must be approved by State Water Board staff prior to adoption by HSRA, and prior to the start of construction.
14. The Applicant is responsible for ensuring that all Project personnel follow proper weed control practices. As specified in Bio-MM#4, a Weed Control Plan(s) must be prepared and implemented for the entire Project, including the off-site compensatory mitigation sites. In addition to the plan elements specified in the MMs and the MMRP, the Weed Control Plan(s) must include measures to: (1) limit movement of weed propagules by vehicular traffic through route restrictions; (2) use cleaning stations; and, (3) provide training of Project personnel in prevention of weed dispersal. The Weed Control Plan(s), and any subsequent revisions, must be approved by State Water Board staff prior to implementation and prior to the start of construction.
15. A Water Quality Monitor shall be employed during construction and shall report to the Contactor's Mitigation Manager as designated in the MMRP. The Water Quality Monitor shall be onsite during all ground-disturbing activities that have the potential to affect water quality. The Water Quality Monitor must be notified by the contractor 24 hours prior to the implementation of all MM's pertaining to hydrology, water quality, erosion control, and storm water management. The Water Quality Monitor shall report on compliance of these Project MMs and related conditions of this Certification. The designated Water Quality Monitor shall be qualified and knowledgeable in water quality, erosion and sediment control regulations, practices and principles. The Water Quality Monitor must, at minimum, be a Qualified Storm Water Pollution Prevention Plan (SWPPP) Practitioner (QSP) or a Qualified SWPPP Developer (QSD) as defined in the State Water Board Order 2009-0009-DWQ, effective July 1, 2010, as amended by Orders 2010-0014-DWQ and 2012-0006-DWQ [NPDES No. CAS000002] (collectively, Construction General Permit).
16. Project MMs pertaining to biological resources shall be monitored by a Project Biological Monitor. The Project Biological Monitor must be notified 24 hours prior to the implementation of a biological MM by the contractor. The reports of the status of biological MM must be reported directly to the Project Biological Monitor by the contractor.

ADDITIONAL CONDITIONS – BEST MANAGEMENT PRACTICES (BMPs):

17. BMPs set forth in this Order may be modified to account for site-specific conditions; or if after construction, a BMP fails to result in compliance with water quality standards or other conditions in this Certification. Any such modifications may be approved by the State Water Board 401 Program Manager if such modifications provide equal or greater water quality protection and comply with water quality standards.

Project Site BMPs

18. All BMP materials and supplies must be on-site and ready for use at the start of construction activity, and must remain in supply and ready for implementation throughout

the construction process. All non-structural BMP materials (e.g., training documents, compliance tracking procedures) must be ready for use at the start of construction.

19. Any straw or hay used for any Project purpose must be certified as weed free.
20. All Project personnel must receive Worker Environmental Awareness Program (WEAP) training before starting work in the Project area, as described in mitigation measure Bio-MM#3 in the MMRP. The WEAP shall include training in appropriate water quality protection measures, including compliance with pertinent conditions of this Certification.
21. The limits of Project disturbance identified in the Project construction plans must be clearly identified in the field with highly visible markers such as construction fencing or silt barriers prior to start of construction activities within waters of the state. Such identification must be properly maintained until construction is completed and the soils have been stabilized. Equipment, materials, or any other substances or activities that may impact waters of the state outside of the limits of Project disturbance are prohibited.
22. Environmentally sensitive areas and environmentally restricted areas must be delineated for exclusion prior to start of construction, as required by mitigation measure Bio-MM#7.
23. Installation and operation of any underground storage tanks must be conducted in compliance with Health and Safety Code, division 20, chapter 6.7 (commencing with section 25280) and California Code of Regulations, title 23, division 3, chapter 16 (commencing with section 2610).

Construction Water Quality BMPs

24. BMPs must be used in areas where access roads intersect waters of the state. Temporary materials placed in any water of the state must be removed as soon as construction is completed at that location, and all temporary roads must be removed or re-contoured and restored according to approved re-vegetation and restoration plans.
25. All stormwater discharged from the Project site must comply with the Construction General Permit and all other applicable storm water discharge permits.
26. Appropriate BMPs must be implemented throughout Project activities to prevent and control potential leaks/spills/drainage of potentially hazardous materials such as: petroleum lubricants, fluids and fuels; non-petroleum lubricants, fluids and fuels such as non-petroleum hydraulic fluid; cured and uncured cements; epoxies, paints and other protective coating materials; cement concrete or asphalt concrete, and washings and cuttings thereof.
27. Fueling, lubrication, maintenance, storage, and staging of vehicles and equipment must not result in a discharge to any waters of the state, and must be located outside of waters of the state in areas where accidental spills will not enter or affect such waters.
28. A daily log must be maintained during construction to note the presence and absence of waste releases from vehicles and equipment parked or operated within 100 feet of waters of the state. Copies of the daily log must be maintained on-site. Daily visual inspections for waste releases of all vehicles and equipment parked or operating within or within 100 feet of waters of the state must be conducted before the vehicles or equipment are used

for conducting work for the day. Any spillage from leaks must be reported in the daily log and contaminated soils must be immediately removed from the Project site and disposed of at an approved area or facility. State Water Board staff may request this information at any time. Any waste releases (i.e., spills, leaks, etc.) of five gallons or greater must be reported to State Water Board staff within 24 hours with an explanation of how the problem was resolved.

29. No rubbish, waste material or waste containers, except on-board litter bags in vehicles or equipment, shall be deposited within 100 feet of waters of the state.
30. If construction-related materials reach surface waters, appropriate spill response procedures must be initiated as soon as the incident is discovered. In addition, the State Water Board staff contact identified in this Certification must be notified via email and telephone within twenty-four (24) hours of the occurrence.

In-Water Work BMPs

31. In-water work activities must not cause water quality objectives of the receiving waters to be exceeded.
32. Disturbed in-water work areas must be temporarily stabilized to prevent erosion at least 48 hours prior to the predicted commencement of a rainfall event with greater than a 50 percent probability of occurrence, as predicted by the National Oceanic and Atmospheric Administration (NOAA) - National Weather Service. If the predicted commencement of such a rainfall event is less than 48 hours after the prediction, temporary stabilization of the disturbed in-water work areas must begin immediately.
33. Bridges, culverts, dip crossings, or other structures must be installed so that water and sediment flow is not impeded.
34. Any structure, including but not limited to, culverts, pipes, piers, and coffer dams, placed within a stream where fish (as defined in Fish and Game Code section 45) exist or may exist, must be designed, constructed, and maintained such that it does not constitute a barrier to upstream or downstream movement of aquatic life, or cause an avoidance reaction by fish due to impedance of their upstream or downstream movement. This includes, but is not limited to, maintaining the supply of water and maintaining flows at an appropriate depth, temperature, and velocity to facilitate upstream and downstream fish migration. If any structure results in a long-term reduction in fish movement, the Applicant shall be responsible for restoration of conditions as necessary (as determined by the State Water Board and Regional Water Board) to secure passage of fish across the structure.
35. Stream-crossing structures must be designed and constructed to safely convey the flow from the 100-year, 24-hour storm event (including associated bed load and debris movement) and must not result in a change in floodway elevations of more than 12 inches. Stream-crossing structures must be properly aligned within the stream and otherwise engineered, installed, and maintained, to assure resistance to washout, and to prevent erosion and/or aggradation of the stream.
36. Except for the following conditions, equipment must not be operated in standing or flowing waters without site-specific approval from State Water Board staff:

- a. All construction activities must be effectively isolated from water flows to the greatest extent possible. This may be accomplished by working in the dry season or dewatering the work area in the wet season. When work in standing or flowing water is required, structures for isolating the in-water work area and/or diverting the water flow must not be removed until all disturbed areas are cleaned and stabilized. The diverted water flow must not be contaminated by construction activities. All open flow temporary diversion channels must be lined with filter fabric or other appropriate liner material to prevent erosion. Structures used to isolate the in-water work area and/or diverting the water flow (e.g., coffer dam, geotextile silt curtain) must not be removed until all disturbed areas are stabilized.
 - b. Cofferdams and water barrier construction must be adequate to prevent seepage into or from the work area to the greatest extent feasible.
 - c. Flow diversions must be conducted in a manner that prevents pollution and/or siltation and in a manner that restores pre-Project flows (except for variation in flows due to seasonality, upstream diversions, etc.) upon completion of the activity. Diverted flows must be of sufficient quality and quantity, and of appropriate temperature, to support existing fish and other aquatic life both above and below the diversion. Diversions must be designed, installed, and maintained to reduce erosion. Pre-Project flows must be restored to the affected surface water body upon completion of work at that location.
37. If groundwater dewatering is required for the Project, the Applicant shall consult with the Regional Water Board to determine if additional permits are required. If additional Regional Water Board permits relating to dewatering are required, the designated State Water Board staff contact identified in this Certification must be notified and copied on pertinent correspondence pertaining to those other required permits.
38. When dewatering is necessary, the water must be pumped or channeled through a sediment settling or filtration device prior to return discharge to the water body. The enclosure and the supporting material for settling or filtration devices must be removed when the dewatering activity is completed. Removal must proceed from upstream to downstream when multiple devices are deployed.

ADDITIONAL CONDITIONS – SURFACE WATER MONITORING:

39. Surface water monitoring shall be implemented when: (1) in-water work is performed; (2) Project activities result in any materials reaching surface waters; or (3) Project activities result in the creation of a visible plume in surface waters. Monitoring of the water quality objectives listed below in subsections (a) through (e) shall be conducted immediately upstream out of the influence of the Project and within 300 feet downstream of the active work area.

Sampling frequency shall be at least once prior to scheduled activities and then every four hours during the activity (or after the discharge is discovered in the case of (2) and (3) described in the above paragraph), and at least one hour after the end of each day's work until the water quality objectives listed below in subsections (a) through (e) below are met. Overnight monitoring of affected stream reaches after each day's work is not required. Turbidity measurements must be collected within one hour after barrier installation and within one hour after barrier removal.

Results of the analysis shall be submitted to the State Water Board within two weeks of initiation of sampling and every two weeks thereafter. A map or drawing indicating the locations of the sampling points must be included with each submittal. If monitoring samples collected exceed the limits described below, then this must be reported to State Water Board staff within 24 hours of occurrence or discovery. Constituent measurements must comply with the following limits:

- a. pH: The Project activities must not depress pH in receiving waters below 6.5 or raise pH above 8.5 as a result of waste discharges.
- b. Temperature: For waters designated COLD or WARM, the Project activities must not alter the receiving water temperature by more than 5°F above the natural temperature.
- c. Dissolved Oxygen:
 - i. The dissolved oxygen concentration of all surface waters designated as WARM must not be depressed below 5.0 mg/l as a result of waste discharges due to Project activities.
 - ii. The dissolved oxygen concentration of all surface waters designated as COLD or SPWN must not be depressed below 7.0 mg/l as a result of waste discharges due to Project activities.
- d. Turbidity:

Turbidity limits are listed below separately for discharges in areas subject to the Water Quality Control Plan for (1) the Sacramento and San Joaquin River Basins and (2) the Tulare Lake Basin. Project activities in these areas must not cause turbidity to exceed the applicable limits listed below.

Except during in-water working periods, these limits will be eased to allow a turbidity increase of 15 Nephelometric Turbidity Units (NTUs) over background turbidity within 300 feet downstream from the working area, and the limits below shall only apply outside of the 300 foot area during this period. In determining compliance with the limits listed below, appropriate averaging periods may be applied provided that beneficial uses will be fully protected and Regional Water Board approval is obtained. Prior approval must be obtained in advance of in-water work.

For discharges to areas subject to the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, Project activities must not cause turbidity in surface waters to exceed the following limits:

- i. where natural turbidity is less than 1 NTU, increases shall not exceed 2 NTUs;
- ii. where natural turbidity is between 1 and 5 NTUs, increases above natural shall not exceed 1 NTU;
- iii. where natural turbidity is between 5 and 50 NTUs, increases above natural shall not exceed 20 percent of turbidity;

- iv. where natural turbidity is between 50 and 100 NTUs, increases above natural shall not exceed 10 NTUs of turbidity; and
- v. where natural turbidity is greater than 100 NTUs, increases above natural shall not exceed 10 percent of turbidity.

For discharges to areas subject to the Water Quality Control Plan for the Tulare Lake Basin, Project activities must not cause turbidity in surface waters to exceed the following limits:

- i. where natural turbidity is between 0 and 5 NTUs, increases above natural shall not exceed 1 NTU;
 - ii. where natural turbidity is between 5 and 50 NTUs, increases above natural shall not exceed 20 percent of turbidity;
 - iii. where natural turbidity is between 50 and 100 NTUs, increases above natural shall not exceed 10 NTUs of turbidity; and
 - iv. where natural turbidity is greater than 100 NTUs, increases above natural shall not exceed 10 percent of turbidity.
- e. Settleable Matter: Project activities shall not cause settleable matter to exceed 0.1 ml/l in surface waters as measured in surface waters 300 feet downstream from the Project in-water work site.

ADDITIONAL CONDITIONS – IMPACTS AND COMPENSATORY MITIGATION:

Project Impacts

40. At the request of HSRA, the U.S. Army Corps of Engineers (Corps) issued a Preliminary Jurisdictional Determination (PJD) for all waters delineated by HSRA on the Project site. A PJD is a non-binding opinion by the Corps that there may be jurisdictional waters of the United States on a particular site. The PJD process has been developed by the Corps to expedite the required Clean Water Act section 404 permitting. The PJD process allows the permit applicant to voluntarily waive or set aside questions regarding Clean Water Act or Rivers and Harbors Act jurisdiction over a particular site so that the Corps is not obligated to perform a formal delineation of federal waters. HSRA delineated approximately 121.87 acres of wetlands and 321.35 acres of other water bodies on the Project site for the PJD. The impacts shown in Table 1 are based on the PJD.

Table 1: Permanent and Temporary Impacts

HIGH SPEED TRAIN - MERCED TO FRESNO PERMITTING PHASE 1 and FRESNO TO BAKERSFIELD CP1c				
IDENTIFIED IMPACTS				
Aquatic Resource Type	Impact Amount			
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (linear feet)	Temporary Impacts (linear. feet)
Streams				
Natural Watercourse (includes San Joaquin River, Cottonwood Creek, and Fresno River)	0.032	1.810	130	170
Constructed Watercourses	<u>1.761</u> <u>2.301*</u>	0.100	<u>765</u> <u>7,890</u>	735
Riparian Impacts				
	1.330	0.600	875	620
Wetlands				
Vernal Pools	1.282	0.000	Not Applicable --- None Reported	
Seasonal Wetlands	<u>0.351</u> <u>0.361</u>	0.000		
Constructed Basins	<u>2.751</u> <u>2.811</u>	2.590		
Open Water	0.831	0.000		
Total Reported Impacts	7.008 8.948	4.500 5.100	895 8895	905
<u>*CP1c impacts include 0.01 ac of permanent impacts to seasonal wetlands, 0.06 ac. of impacts to stormwater detention basins, and 0.54 ac./7,125 linear feet impacts to constructed watercourses.</u> <u>Riparian temporary impact acres were not included in sum of acres in the 1st amended certification, but are included in the sum in this table.</u>				

41. The Applicant shall conduct and submit a full “as-built” assessment of Project impacts to waters of the state within 90 days of the end of Project construction, to verify the amount of impacts that actually occurred. Any changes to the values shown in Table 1 must require appropriate adjustments to compensatory mitigation and fees.

Project Compensatory Mitigation for Unavoidable Impacts to Aquatic Resources

42. Compensatory mitigation shall be required to replace the temporary and permanent loss of wetland and aquatic resource functions in the watershed. Compensatory mitigation refers to the restoration, establishment, enhancement, or in certain circumstances preservation of wetlands, streams or other aquatic resources for the purpose of offsetting unavoidable adverse impacts. The area required for compensatory mitigation must be greater than the area impacted, unless approved by the State Water Board. Thus compensatory mitigation is expressed as a ratio of area required for mitigation to the area impacted, such as, for example, a ratio of 2:1 (two acres of mitigation for one acre of impacted waters).

43. Any portion of a vernal pool that is filled as part of the Project must be replaced by providing compensatory mitigation for the entire area of the vernal pool impacted.
44. The compensatory mitigation ratios for permanent and temporary impacts to waters of the state are presented in Attachment E, Mitigation Ratios.
45. All compensatory mitigation conditions for PP1 as certified on April 10, 2014 shall apply to this second amendment. Compensation for impacts to 0.01 ac. of seasonal wetlands shall be implemented at the Lazy K mitigation site at a 3:1 ratio, and shall be subject to all approved mitigation and monitoring plans in place or under review for the Lazy K site, including those described in the following conditions. Mitigation for impacts to canals and ditches and retention/detention basins constructed in existing watercourses will occur at the location of impacts through restoration of the watercourse to pre-project functions, consistent with the implementation plan for on-site mitigation at Section 5 of the PRMP, such that all functions and values are replaced.

Permittee-Responsible Mitigation Plan

46. According to the MMRP's Bio-MM#58, the Applicant is to prepare and implement a Habitat Mitigation and Monitoring Plan (HMMP) that will describe applicant mitigation measures for temporary and permanent impacts to "jurisdictional waters and state streambeds." In compliance with this requirement, the Applicant has submitted the March 2014 Permittee Responsible Mitigation Plan (PRMP) which is incorporated herein by reference and made a part of this Certification.
47. If mitigation goals are not achieved within time frames set in the PRMP, an increase in compensatory mitigation requirements sufficient to account for any additional temporal impacts incurred due to any delay, including construction delays of the mitigation projects and finalization of implementation of the PRMP, may be assessed.

Additional Compensatory Mitigation Requirements

The following additional requirements shall be implemented by HSRA for compensatory mitigation projects. These requirements shall supersede any conflicting requirements or procedures described in the PRMP.

- a. Temporary Project impacts to water body bed, bank and adjacent riparian areas.
 - i. HSRA shall stabilize and restore all temporarily disturbed areas that may impact aquatic resources at a minimum of a 1:1 ratio and according to the requirements of the Construction General Permit and post-construction storm water conditions of this Certification.
 - ii. Site Plan Review. Irrigation plans and related restoration construction documents for temporarily disturbed areas, including seeding mixes, must be submitted to the State Water Board for approval four months prior to restoration implementation at a specific site. HSRA shall restore all temporarily disturbed areas that may impact aquatic resources within 12 months following completion of Project activity at individual restoration locations. This period may be extended to accommodate

proper planting times. If restoration is not completed within two years of the impacts, additional mitigation will be required to offset temporal losses of waters of the state.

- b. Permanent Project Impacts.
 - i. Compensatory mitigation plans for permanent impacts shall provide for access to the mitigation sites for all purposes, including vector control activities by vector control agencies and staff, on-going maintenance, and mitigation compliance review by State Water Board staff.
 - ii. Compensatory mitigation plans for permanent impacts shall include any additional information as deemed necessary by the State Water Board or other responsible State or federal agencies
- c. Monitoring and Reporting
 - i. Monitoring and reporting shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be implemented by qualified practitioners during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the success criteria listed in the PRMP after the maintenance and monitoring period, maintenance and monitoring will be extended until the criteria are met or unless otherwise approved by State Water Board staff.

Monitoring will include periodic condition assessment of wetland compensatory mitigation sites using the California Rapid Assessment Method (CRAM). At the conclusion of the monitoring period, a final CRAM report shall be provided that describes the progression from baseline to the final assessment.

All reports must include the file number of this Certification, SB13001IN, and the Regulatory Measure Number (RM#) 391375. All reports and replacement/restoration site maps shall be uploaded to EcoAtlas.
- d. Long Term Management Plan
 - i. In accordance with the PRMP, HSRA shall prepare a Long-Term Management Plan (LTMP) for the off-site compensatory mitigation sites. The LTMP must be submitted to the State Water Board for approval within four months of the issuance of this Certification and prior to the start of construction (as defined in Condition 8 above). Substantial changes to the LTMP may result in additional review period(s). Any change in the LTMP, including designation of land manager(s) for the compensatory mitigation sites, must be approved by the State Water Board staff.
 - ii. Unless an extension is requested by the Applicant and granted by the State Water Board 401 Program Manager before the four months have expired, failure to meet this deadline may result in a revocation action pursuant to Standard Condition 1 of this Certification. Any such request shall include: a full explanation of the reason and need for an extension; a full explanation of steps the Applicant is taking to address the reasons for the delay; and a detailed schedule for completion.

Compensatory Mitigation Site Acquisition

48. Compensatory Mitigation Site Acquisition Timing.

- a. All compensatory mitigation sites must be acquired or secured (i.e., in escrow or other legally documented purchase process) by the Applicant within 12 months of issuance of this **amended** Certification. Any delay in acquiring or securing approved compensatory mitigation sites by the Applicant may result in higher compensatory mitigation ratio requirements to offset the additional temporal losses of waters of the state.
- b. Full title and ownership or land transfer agreements for all compensatory mitigation properties must be finalized by the end of construction of the Project, unless an extension is requested by the Applicant and granted by the State Water Board staff. Completion of construction shall be as defined under the Construction General Permit. Requests for extensions must clearly describe the status of the transactions, the reason(s) for the delay, and the steps to be taken to complete the transactions.

49. Property, conservation easements, and or any other interests in real property obtained for compensatory mitigation must be subject to approval by State Water Board staff.

50. Conservation Easement Deed.

A copy of the conservation easement deed (or other approved instrument) for the approved compensatory mitigation site(s) must be submitted to State Water Board staff within 18 months of issuance of this **amended** Certification. The conservation easement(s) will indicate the "Grantor" (original property owner) and "Grantee" (conservation easement holder).

- a. For the purposes of independent review, the Grantee shall not be the HSRA. HSRA shall provide sufficient funds to the Grantee to allow monitoring the preserve in perpetuity; to administer and ensure compliance with the conservation easement terms; and, to report to the State Water Board and other entities with an interest in the conservation easement(s). Funds shall be provided by HSRA to the Grantee within 18 months of issuance of this Certification.
- b. The conservation easement(s) must ensure that the property for compensatory mitigation will be retained in perpetuity in compliance with Civil Code, section 815 et seq. and maintained as described in the Final HMMP.
- c. The conservation easement(s) must provide the Assessor's Parcel Numbers (APNs) for all the properties in the mitigation site. The conservation easement deed must require the holder to report any changes in APNs to the State Water Board 401 Program Manager within 3 days of the change.

Financial Assurances

51. The State Water Board requires that sufficient financial assurances for mitigation be in place prior to the issuance of a water quality certification to ensure that water quality

standards are met (40 C.F.R. § 121.2; Cal. Code Regs., tit. 23, § 3831, subd. (u)). However, in cases where an alternative mechanism is available to ensure a high level of confidence that compensatory mitigation will be provided and maintained, the State Water Board may determine that financial assurances are redundant and therefore not necessary.

The HSRA is funded, in part, through general obligation bonds authorized by California voters on November 11, 2008. The Legislature adopted a business plan that set aside up to 7.5 percent of these general obligation bond proceeds for, among other things, mitigation of any direct or indirect environmental impacts (Sts. & Hy. Code, § 2704.08, subd. (g)). The HSRA states that its public agency status and the Legislature's intent to expedite funding for the High Speed Rail Project's environmental mitigation serve as a sufficient guarantee on HSRA's performance of compensatory mitigation requirements. However, HRSA has agreed to provide financial assurances according to the terms in Attachment F Pursuant to these terms in Attachment F, HSRA shall enter into a covenant or obligation to spend the amount of mitigation funding necessary to implement and maintain the mitigation required by the PRMP and this Certification. HRSA shall include a provision that names the State Water Board as a third party beneficiary entitled to act, in its sole discretion, to enforce HSRA's obligations to implement and maintain the required mitigation.

The State Water Board acknowledges that the terms set forth in Attachment F, along with any other financial assurances required by the U.S. Army Corps of Engineers in connection with the HSRA application for a permit, should be sufficient. However, the State Water Board reserves the right to reopen this Certification and require additional financial assurances as deemed necessary by the State Water Board (33 U.S.C. 1341(a)(3); Cal. Code Regs., tit. 23, § 3860, subd. (a)).

Circumstances that may trigger the imposition of additional financial assurances include, but are not limited to: any court order that overturns or invalidates the voter authorization of the general obligation bonds; a proposed legislative amendment or executive order diminishing or striking the set aside for mitigation of environmental impacts; unreasonable delay in meeting compensatory mitigation obligations; or, any other circumstance which results in a reasonable threat that water quality standards will not be met. Any judgment as to whether circumstances warrant the imposition of additional financial assurances shall be in the sole discretion of the State Water Board.

ADDITIONAL CONDITIONS – CONSTRUCTION AND POST-CONSTRUCTION STORM WATER REQUIREMENTS:

52. The Applicant shall obtain coverage under the State Water Board's Construction General Permit for all Project areas that disturb one acre or more of land.
53. The post-construction storm water requirements below meet or exceed the post-construction requirements in Section XIII of the Construction General Permit. As a result, Applicant's compliance with the post-construction storm water requirements in this Certification will also result in compliance with the post-construction requirements in the Construction General Permit.

54. Post-construction requirements in any future individual Municipal Separate Storm Sewer System (MS4) Permit issued by the State Water Board for the HST System will supersede the post-construction requirements in this Certification.
55. Post-Construction Measures: The Applicant shall prepare and submit to the State Water Board, for review and approval, a Water Quality Management Plan (WQMP) and Drainage Concept Report for each new development and re-development site (development site).¹ The Drainage Concept Report must provide detailed, site-specific information about the water quality measures to be implemented in that development area, including site design, source control, low impact development (LID), post-construction treatment control and hydromodification control BMPs to effectively manage wet-weather and dry-weather water quality and quantity by limiting or managing pollutant sources and changes in flow rates and velocities.
56. Landscaping and plant selection: After construction, the Applicant shall re-vegetate areas disturbed by construction using viable seed of California native species. Where feasible, native seed must be collected within and adjacent to the Project area prior to or during construction or obtained from a native plant nursery or native seed supplier. Where feasible, native seed must be collected from local genetic sources in the same or adjacent watershed, collected and planted within the same zone, and within approximately 500 feet of its original elevation. For widespread herbaceous species that are more likely to be genetically homogenous, seed collection areas may include a broader geographic range. Seed must be free of noxious weeds.

The Applicant must submit a list of commercial seed vendors that collect and sell seeds that are appropriate to the Project area, and recommended seed mixes to State Water Board staff prior to purchase of the seed. Selected seed vendor(s) and seed mix(es), including the origin of the seed and seed ratios within the seed mixes, are subject to State Water Board staff approval.

Post-Construction Treatment Control

57. The Applicant shall implement the post-construction treatment control BMPs as specified in Provision 56 for the development sites that are (a) rail projects that create 1 acre or more of disturbed soil area, (b) Non-Rail Facilities that disturb more than 5,000 square feet or more of land.
58. The Applicant shall apply numeric sizing criteria for post-construction treatment control BMPs. Post-construction treatment control BMPs shall be designed according to the following priorities (in order of preference). At a minimum, the LID-based BMPs must be designed to ensure that post-development site runoff volume from the 85th percentile, 24-hour storm event does not exceed pre-development site runoff volume from the 85th percentile, 24-hour storm event.
 - a. First Preference: Low Impact Development (LID) –based BMPs must be designed so that post-development site runoff volume from the 85th percentile, 24-hour storm event is infiltrated, harvested and re-used, and/or evapotranspired of the Project area.

¹ A development site is defined as an area of development within the Project that is contiguous and represents one facility, including ancillary impervious surfaces.

- b. Second Preference: In the event the entire runoff volume or flow from an 85th percentile 24-hour storm event cannot be infiltrated, harvested and re-used, or evapotranspired for the Project area, the excess volume may be treated by LID-based flow-through treatment devices.
 - c. Third Preference: Where LID-based flow-through treatment devices are not feasible, the excess volume may be treated through conventional volume-based or flow-based storm water treatment devices.
 - d. Volume-based BMPs: The Applicant, at a minimum, shall calculate² the volume to be treated using one of the following methods:
 - i. The volume of runoff produced from an 85th percentile 24-hour storm event;
 - ii. The volume of runoff produced by the 85th percentile 24-hour storm event, determined as the maximized capture runoff volume for the facility, from the formula recommended in the Water Environment Federation's Manual of Practice;³ or,
 - iii. The volume of annual runoff based on unit basin storage volume, to achieve 90 percent or more volume treatment by the method recommended in the latest edition of California Stormwater Best Management Practices Handbook.⁴
 - e. Flow-based BMPs: The Applicant shall calculate the flow needed to be treated using one of the following methods:
 - i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch/hr for each hour of a storm event;
 - ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from local historical rainfall records, multiplied by a factor of two; or,
 - iii. The maximum flow rate of runoff, as determined using local historical rainfall records, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.
59. The Applicant shall always prioritize the use of design pollution prevention, landscape and soil-based BMPs to treat storm water runoff. Other BMPs (e.g. sand filters, infiltration basins, treatment and filter systems) may be used only after landscape and soil-based BMPs are determined to be infeasible, and approval is obtained from the State Water

² All hydrologic calculations shall be certified by a California licensed professional engineer in accordance with the Professional Engineers Act (Bus. & Prof. Code, § 6700 et seq.).

³ Water Environment Federation (WEF). Manual of Practice No. 23/ ASCE Manual of Practice No. 87, cited in chapter 5 (1998 Edition) and Cited in Chapter 3 (2012 Edition) .

⁴ California Stormwater Quality Association. Stormwater Best Management Practice New Development and Redevelopment Handbook. < <http://www.casqa.org/> >. [as of July 3, 2013].

Board. When seeking approval from the State Water Board, HSRA shall document the infeasibility of using landscape and soil-based BMPs, or document that there will be fewer water quality impacts through the use of other BMPs.

Hydromodification

60. The Applicant shall ensure that development sites do not cause a decrease in lateral (bank) and vertical (channel bed) stability in receiving stream channels. Unstable stream channels negatively impact water quality by yielding much greater quantities of sediment than stable channels.

The Applicant shall employ the risk-based approach detailed in this Certification to assess lateral and vertical stability. The approach assists the Applicant in assessing pre-development site channel stability and implementing mitigation measures that are appropriate to protect structures and minimize stream channel bank and bed erosion.

- a. Rail or non-rail facility development sites that create 5,000 square feet to 1 acre of disturbed soil area must implement design pollution prevention BMPs, as follows in conditions 60(b) through (c), described in this Certification at Provision 60.
- b. Rail or non-rail facility development sites that create 1 acre or more of disturbed soil area completely outside of a threshold drainage area must implement Design Pollution Prevention BMPs as specified in Provision 60 and post-construction treatment control BMPs as specified in Provision 56. A threshold drainage area is defined as the area draining to a location at least 20 channel widths downstream of a stream crossing (i.e., pipe, swale, culvert, or bridge) within the construction footprint. Delineating the threshold drainage area is not necessary if there are no stream or natural drainage crossings within the construction footprints.

Rail or non-rail facility development sites that create 1 acre or more of disturbed soil area completely outside of a threshold drainage area shall also be constructed to preserve the pre-development site drainage density (miles of stream length per square mile of drainage area) for all drainage areas within an area serving a first order stream or larger stream, and to ensure that post-development site time of runoff concentration is equal or greater than pre-development site time of runoff concentration. Time of runoff concentration is defined as the time needed for water to flow from the most remote point on a project site to the project site outlet.

To meet the drainage density requirement, the Applicant shall maximize sheet flow and use an “open” drainage system (i.e., swales, ditches, vegetated channels) for concentrated flows wherever possible. Sheet flow areas, swales, ditches, and vegetated channels are not considered streams for the purpose of calculating drainage density. Because of the nature of the HST system as a linear transportation corridor, it is not anticipated that the Project will increase the drainage density. Local relocations of existing irrigation channels or natural streams may require new structures to cross the HST system. It is not anticipated that the new structures will affect stream drainage density.

To meet the time of runoff concentration requirements, the Applicant shall use the recommended method in the applicable local hydraulic design or flood control manual. If a recommended method does not exist, the Applicant shall use the time of runoff

concentration calculation method contained in the Natural Resources Conservation Service's Technical Release 55: Urban Hydrology for Small Watersheds (Natural Resources Conservation Service 1986).

Hydrology maps must be prepared as part of the post-development WQMP to show threshold drainage areas and calculations required for BMP sizing.

- c. Rail or non-rail facility development sites that create one acre or more of disturbed soil area with any portion of the development site located within a threshold drainage area must conduct a rapid assessment of natural stream stability (i.e., Level 1 stream assessment) according to Guidance and worksheets used for the rapid assessment of stream stability in the Federal Highway Administration (FHWA) publication "Assessing Stream Channel Stability at Bridges in Physiographic Regions" (FHWA, 2006) at each stream crossing (i.e., pipe, culvert, swale or bridge) within that threshold drainage area. If the stream crossing is a bridge, a follow-up rapid assessment of stream stability is also required and can be coordinated with the federally mandated bridge inspection process. The assessment will be conducted within a representative channel reach to assess lateral and vertical stability. A representative reach is a length of stream channel that extends at least 20 channel widths upstream and downstream of a stream crossing. For example, a 20-foot-wide channel will require analyzing a 400-foot distance both upstream and downstream of the discharge point or bridge (800 feet total). If sections of the channel within the 20-channel-width distance are immediately upstream or downstream of steps, culverts, grade controls, tributary junctions, or other features and structures that significantly affect the shape and behavior of the channel, more than 20 channel widths should be analyzed. Guidance and worksheets used for the rapid assessment must be documented in the post-development WQMP.
- d. If the results of the rapid assessment indicate that the representative reach is laterally and vertically stable (i.e., a rating of excellent or good) the Applicant is not required to conduct further analyses, but must comply with Provision 58.b..
- e. If the results of the rapid assessment indicate that the representative reach will not be laterally and vertically stable (i.e., does not score a rating of excellent or good), the Applicant shall determine whether the instability, in conjunction with the proposed development site, poses a risk to existing or proposed rail-line or existing highway structures by conducting appropriate Level 2 (and, if necessary, Level 3) analyses. The Applicant shall follow the Level 2 and 3 analysis guidelines contained in Hydraulic Engineering Circular No. 20 (HEC-20) (FHWA, April 2012) or a suitable equivalent within an accessible portion of the reach. If the results of the appropriate Level 2 (and, if necessary Level 3) analyses indicate that there is no risk to existing or proposed rail-line or existing structures, the Applicant shall comply with Provision 58.b. and shall document the methodologies used and the results.
- f. If the results of the Level 2 and 3 analysis indicate that the instability, in conjunction with the proposed development site, poses a risk to existing or proposed rail-line or existing structures, other options as specified in HEC-20 must be proposed, including, but not limited to, stream bed and bank stabilization required to protect HST system structures and other structures affected by the development site, and if necessary, project re-design for approval by the State Water Board Executive Director.

61. The Project is a design-build project, and final design features are not yet fully known. Some elements of the final design may involve the creation, addition, and/or replacement of impervious surface on an already developed site; i.e., redevelopment. Examples include the expansion of a building footprint, road widening, the addition or replacement of a structure, and creation or addition of impervious surfaces. The following Scope of Design Criteria must apply to all Project elements that involve redevelopment.

- a. Where redevelopment results in an increase in impervious area that is less than or equal to 50 percent of the total post-development site impervious area of an existing development, the numeric sizing criteria shall only apply to the new impervious area and not to the entire Project. If the redeveloped impervious area cannot be hydraulically separated from the existing impervious area, the HSRA shall provide treatment for existing and redeveloped areas.
- b. Where redevelopment results in an increase in impervious area that is greater than 50 percent of the total post-development site impervious area of an existing development, the numeric sizing criteria apply to the entire Project.

BMP Design Requirements for Post-Construction Treatment Control

62. The Applicant shall include BMPs that will reduce discharges of pollutants to the Maximum Extent Practicable (MEP) in the post-construction design specifications for all Project components to be constructed. These standards shall at a minimum, include the following:

- a. Source Control Requirements – The Applicant shall implement permanent and/or operational source control BMPs to address the following pollutant sources, as applicable:
 - i. Accidental and illicit discharges to on-site storm drain inlets;
 - ii. Interior floor drains and elevator shaft sump pumps;
 - iii. Interior parking garages;
 - iv. Indoor and structural pest control;
 - v. Landscape/outdoor pesticide use;
 - vi. Refuse areas;
 - vii. Industrial processes;
 - viii. Outdoor storage of equipment or materials;
 - ix. Vehicle and equipment cleaning;
 - x. Vehicle and equipment repair and maintenance;
 - xi. Fuel dispensing areas;
 - xii. Loading docks;
 - xiii. Fire sprinkler test water;
 - xiv. Drain or wash water from boiler drain lines, condensate drain lines, rooftop equipment, drainage sumps, and other sources.
- b. Design Pollution Prevention BMPs – The Applicant shall include the following pollution-prevention BMPs in the design specifications of all projects that create disturbed soil area (DSA), for projects designed to meet the Post-Construction requirements above. The WQMP shall be updated to reflect these principles:

- i. Conserve natural areas, to the extent feasible, including existing trees, stream buffer areas, vegetation and soils;
- ii. Minimize the impervious footprint of the Project;
- iii. Minimize disturbances to natural drainages;
- iv. Design and construct pervious areas to effectively receive runoff from impervious areas, taking into consideration the pervious areas' soil conditions, slope and other pertinent factors;
- v. Implement landscape and soil-based BMPs such as compost-amended soils and buffer strips taking into consideration the pervious areas' soil conditions, slope and other pertinent factors;
- vi. Use climate-appropriate landscaping that minimizes irrigation and runoff, promotes surface infiltration, and minimizes the use of pesticides and fertilizers;
- vii. Design all landscapes to comply with the California Department of Water Resources Water Efficient Landscape Ordinance or, if applicable, any more stringent local water conservation ordinance.
<http://www.water.ca.gov/wateruseefficiency/landscapeordinance/technical.cfm>

63. In the WQMP, the Applicant shall include a description of how post-construction treatment control BMPs will be developed, constructed and maintained, and shall apply, as appropriate, the following criteria:

- a. Vector Control
 - i. All post-construction treatment control BMPs that retain storm water must be designed, operated and maintained to minimize mosquito production, and to drain within 96 hours of the end of a rain event, unless designed and maintained to control vectors. Proprietary BMPs shall be maintained at the frequency specified by the manufacturer. The Applicant shall operate and maintain all BMPs to prevent the propagation of vectors, including complying with applicable provisions of the California Health and Safety Code relating to vector control.
 - ii. The Applicant shall cooperate and coordinate with the California Department of Public Health (CDPH) and with local mosquito and vector control agencies on issues related to vector production in the Applicant's structural BMPs. The Applicant shall prepare and maintain an inventory of structural BMPs that retain water for more than 96 hours. The inventory must be provided to CDPH in electronic format for distribution to local mosquito and vector control agencies. The inventory must be provided as part of the second annual report and updated every two years.
- b. Post-construction treatment control BMPs must be implemented in accordance with the following criteria:
 - i. The Applicant shall inspect all newly installed post-construction treatment control BMPs within 45 days of installation to ensure they have been installed and constructed in accordance with approved plans. If approved plans have not been

- followed, the Applicant shall take appropriate remedial actions to bring the BMP into conformance with its approved design.
- ii. The Applicant shall inspect all installed structural post-construction treatment control BMPs at least once every year after installation.
 - iii. The Applicant may route discharge from post-construction treatment control BMPs to the MS4 if the discharge complies with the applicable MS4 permit requirements. Retained sediments must be disposed of properly, in compliance with all applicable local, State, and federal acts, laws, regulations, ordinances, and statutes.
 - iv. The Applicant shall develop and utilize a watershed-based database or tracking spreadsheet to track and inventory post-construction treatment control BMPs installed and structural treatment BMP maintenance within its jurisdiction. At a minimum, the database must include:
 - Name and location of structural treatment BMP;
 - Watershed and Regional Water Board where project is located;
 - Size and capacity;
 - Treatment BMP type and description;
 - Date of installation;
 - Maintenance certifications or verifications;
 - Inspection dates and findings;
 - Compliance status;
 - Corrective actions, if any; and
 - Follow-up inspections to ensure compliance.
 - v. Electronic reports for each structural treatment BMP inspected during the reporting period must be submitted to the State Water Board electronically into Storm Water Multiple Application and Reporting Tracking System (SMARTS).
 - vi. Structural post-construction treatment control BMPs must not constitute a hazard to wildlife.
64. The Applicant shall utilize wildlife-friendly 100 percent biodegradable erosion control products wherever feasible in BMPs for post-construction treatment control. For purposes of this Certification, photodegradable synthetic products are not considered biodegradable. At any site where erosion control products containing non-biodegradable materials have been used for temporary site stabilization, the Applicant shall remove such materials when they are no longer needed. If the Applicant finds that erosion control netting or products have entrapped or harmed wildlife at any site or facility, the Applicant shall remove the netting or product and replace it with wildlife-friendly biodegradable products within 15 days.
65. The Applicant shall evaluate pesticides, herbicides and fertilizers used and application activities performed in BMPs for post-construction treatment control and identify pollution prevention and source control opportunities, and must implement practices that reduce the discharge of pesticides, herbicides and fertilizers to the MEP. At a minimum the Applicant shall:

- a. Implement educational activities for applicators and distributors.
 - b. Record the types and amounts of pesticides, herbicides and fertilizers used in the permit area.
 - c. Implement landscape management measures that rely on non-chemical solutions, including:
 - i. Create drought-resistant soils by amending soils with compost.
 - ii. Create soil microbial community through the use of compost, compost tea, or inoculation.
 - iii. Use native and climate appropriate plants to reduce the amount of water, pesticides, herbicides and fertilizers used.
 - iv. Practice grass cycling on decorative turf landscapes to reduce water use and the need for fertilizers.
 - v. Keep grass clippings and leaves away from waterways and out of the street using mulching, composting, or landfilling.
 - vi. Prevent application of pesticides, herbicides and fertilizers during irrigation or within 48 hours of predicted rainfall with greater than 50 percent probability as predicted by NOAA.
 - vii. Limit or replace herbicide and pesticide use (e.g., conducting manual weed and insect removal).
 - viii. Prohibit application of pesticides, herbicides and fertilizers within five feet of pavement, 25 feet of a storm drain inlet, or 50 feet of a water body.
 - ix. Collect and properly dispose of unused pesticides, herbicides, and fertilizers.
 - x. Reduce mowing of grass to allow for greater pollutant removal, to the extent feasible while providing for public safety and fire/fuels management.
 - xi. Minimize irrigation run-off by using an evapotranspiration-based irrigation schedule and rain sensors.
66. The Applicant shall maintain a daily log to note the presence and absence of waste releases from vehicles and equipment, except those related to the regular operation of the train. Copies of the daily log must be available upon request.

STATE WATER BOARD STAFF CONTACT PERSON:

All reports, notification, other required communications regarding this certification and questions must be directed to the designated staff contact: State Water Board Environmental Scientist Cliff Harvey at (916) 558-1709, via e-mail at clifford.harvey@waterboards.ca.gov, or by mail at:

Cliff Harvey, Environmental Scientist
State Water Resources Control Board
401 Certification and Wetland Program
1001 I Street, 15th Floor
P.O. Box 100
Sacramento, CA 95812-2000

You may also contact Bill Orme, Chief of the 401 Certification and Wetlands Protection Unit, at (916) 341-5464, via e-mail at bill.orme@waterboards.ca.gov, or at the address shown above.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA):

On May 3, 2012, the HSRA, as lead agency, certified a FEIR/FEIS (State Clearinghouse (SCH) No. 2009091125) for the *California High Speed Train, Merced to Fresno Section* in accordance with CEQA (Resolution No. HSRA 12-19). HSRA subsequently selected the "Hybrid Alternative" for the proposed Project and issued its Findings and Statements of Overriding Considerations.

The HSRA Board of Directors, as the lead agency, subsequently certified the FEIR/FEIS for the Fresno to Bakersfield section of the HST, including CP1c, and issued a Notice of Determination in accordance with CEQA on May 8, 2014. In doing so, the HSRA Board adopted CEQA findings of fact, a corresponding statement of overriding considerations, and a Mitigation Monitoring and Reporting Program (Resolution #HSRA 14-10).

In making its determinations and findings, the State Water Board presumes that the HSRA's certified environmental document comports with the requirements of CEQA and is valid. (Pub. Resources Code, § 21167.3, subd. (b).) State Water Board staff has reviewed and considered the FEIR/FEIS **documents prepared for Merced to Fresno and for Fresno to Bakersfield,** and proposed mitigation measures and finds that the **FEIR/FEIS documents** provided by HSRA **is are** adequate. An MMRP **for each document (Attachments H and I)** is in place to document the mitigation measures and how they are to be implemented.

The *State Water Resources Control Board CEQA Findings and Statements of Overriding Considerations* (Attachment G) includes findings to be adopted by the State Water Board pursuant to section 15096 of title 14 of the California Code of Regulations, in conjunction with the approval of this Certification.

WATER QUALITY CERTIFICATION:

I hereby issue an Order certifying that as long as all of the conditions listed in this Certification action are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards). This discharge is also regulated pursuant to State Water Board Water Quality Order 2003-0017-DWQ which authorizes this Certification to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Act (Wat. Code § 13000 et seq.). Except insofar as may be modified by any preceding conditions, this Certification is contingent upon (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of the Certification and the attachments to this Certification, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Central Valley Regional Water Board's Water Quality Control Plans and Policies and (c) the CEQA documentation cited in the findings above.

T. Thomas Howard
Thomas Howard
Executive Director
State Water Resources Control Board

6/12/15
Date

- Attachments (7): Attachment A. Signatory Requirements
Attachment B. Project Information
Attachment C. Project Area Maps
Attachment D. Certification Deviation Procedures
Attachment E. Mitigation Ratios
Attachment F. Financial Assurances
Attachment G. CEQA Findings and Statement of Overriding Considerations